1. A method of ink jet printing with UV curable ink on a substrate that may be formed of a heat sensitive rigid or other material, the method comprising:

moving a printhead carriage having an ink jet printhead thereon approximately parallel to a substrate;

jetting ink from the heads across the predetermined distance onto the surface of a substrate;

providing at least one cold UV curing assembly on the carriage oriented to direct UV energy onto the surface of the substrate sufficiently close to where ink is being jetted onto the surface so as to freeze dots of the jetted ink on the surface; and

the cold UV assembly being effective to impinge sufficient UV light on the ink to substantially cure the ink while without impinging radiation of other wavelengths that would heat the substrate so as to deform it.

2. The method of claim **1** further comprising:

adjusting the distance from the printheads to the substrate to position the head at a predetermined distance from the surface of the substrate on which ink is jetted from the heads.

3. The method of claim **1** further comprising:

the exposing of the ink includes adjusting the distance of the UV light from a light source to focus the UV light onto the surface that bears the jetted ink.

4. The method of claim **3** wherein:

the exposing of the ink includes adjusting the focal length from a source of the UV light on the surface that bears the jetted ink to maintain the focus of UV light thereon as distance from the source to the surface varies.

5. The method of claim **1** wherein:

the ink is UV curable ink;

the method further comprises at least partially curing the ink jetted onto the surface by exposing the jetted ink to ultraviolet light and then heating the

surface having the at least partially cured ink thereon to reduce the content of unpolymerized monomers of the ink on the substrate.

6. The method of claim **5** wherein the heating includes flowing heated air onto the surface of the substrate having the at least partially cured UV light cured ink thereon to remove uncured components of the ink from the substrate.

7. The method of claim **1** further comprising:

sensing the position of the surface of the substrate relative to the carriage; and

adjusting the distance from the printhead to the plane of the substrate in response to said sensing.

8. The method of claim **7** wherein:

the sensing of the positions is carried out while moving the printhead carriage; and

the adjusting includes varying the position of the printhead relative to the plane of the substrate as the printhead carriage moves so as to maintain the predetermined distance of each of the printheads from the surface of the substrate in response to the sensed position.

9. An apparatus for printing on three-dimensional surfaces of substrates comprising:

a substrate support defining a substrate supporting plane;

a printhead track extending parallel to the plane having a printhead carriage moveable thereon;

at least one ink jet printhead on the carriage;

at least one UV curing head on the carriage sufficiently close to the ink jet printhead to freeze dots of ink in position on the substrate when jetted thereon from the printhead;

the UV curing head being configured to emit sufficient UV energy to cure the ink jetted onto the substrate without heating and thermally deforming the substrate when formed of a heat deformable material.

10. The apparatus of claim **9** further comprising:

a plurality of ink jet printheads each moveably supported on the carriage and directed toward the surface of a substrate when supported by the substrate support;

a sensor operable to determine a location on the surface of the substrate; and

the printheads being separately and selectively moveable perpendicular to the plane in response to the sensor to a predetermined distance from the determined location on the surface of the substrate; and

a controller operable to move and control the printheads to print on the substrate by jetting ink from the printheads across the predetermined distance and onto the surface of a substrate.

11. The apparatus of claim **10** further comprising:

a carriage moveable on the track parallel to the plane of the substrate, the printheads being separately and selectively moveable perpendicular to the plane;

at least one UV curing head mounted on the carriage and directed so as to expose ink on the surface of a substrate on the substrate support; and

the controller being operable to move the carriage and to operate the UV curing head.

12. The apparatus of claim **11** wherein:

the at least one UV curing head includes at least two cold UV curing heads, one positioned on the carriage at each side of the printheads so that one leads the printheads and one trails the printheads as the carriage moves on in either of two opposite directions on the track; and

the controller is operable to activate at least the trailing one of the UV curing heads to expose the ink jetted by the printheads on the surface of the substrate in the same pass of the carriage over the surface in which the ink being exposed was jetted.

13. The apparatus of claim **11** wherein:

the UV curing head is moveable relative to the plane; and

the controller is operable to move the curing head to maintain focus of UV light from the printhead on ink jetted onto the surface of the substrate.

14. The apparatus of claim **11** further comprising:

a heating station positioned so as to heat UV light exposed ink on a substrate.

15. The apparatus of claim **14** wherein:

the heating station includes a blower oriented to direct heated air onto a substrate on the support.

16. The apparatus of claim **9** wherein:

the plurality of ink jet printheads includes a plurality of individually moveable printheads spaced in the direction of movement of the carriage so as to sequentially pass over the same areas of the substrate, each printing one of a set of colors thereon;

the printheads being separately and selectively moveable perpendicular to the plane in response to the sensor to maintain a constant distance of travel of ink from each printhead to the surface of the substrate; and

a controller operable to control the printheads to sequentially follow the contour of the substrate surface as the carriage moves across the substrate.

17. The apparatus of claim **16** wherein:

the plurality of ink jet printheads includes a plurality of sets of individually moveable printheads arranged side-by-side on the carriage perpendicular to the

direction of movement of the carriage so that each can maintain a controlled spacing from the substrate where the contour of the substrate varies in the direction perpendicular to the movement of the carriage.

18. The apparatus of claim **9** wherein:

the plurality of ink jet printheads includes a plurality of individually moveable printheads arranged side-by-side on the carriage perpendicular to the direction of movement of the carriage so that each can maintain a controlled spacing from the substrate where the contour of the substrate varies in the direction perpendicular to the movement of the carriage.